Electronic Version
Stylesheet Version v1.1.1

Claims

[c1] A method for processing a workpiece, comprising the steps of:

providing a plurality of contacts for holding the workpiece;

processing a surface of the workpiece; and

releasing at least one of the contacts during the processing step.

[c2] The method of claim 1, wherein the plurality of contacts grip a periphery of the workpiece such that an upper and a lower surface of the workpiece are exposed to processing.

[c3] The method of claim 1, wherein the plurality of contacts comprises a first set of three contacts and a second set of three contacts.

[c4] The method of claim 3, wherein the first set remains in contact with the workpiece and the second set is released from the workpiece.

[c5] The method of claim 4, wherein the first set holds the workpiece and during the processing step processing fluids are unimpeded to flow off a surface of the work-

piece at the locations on the workpiece where the second set of contacts is released therefrom.

[c6] The method of claim 4, wherein after the first set is in contact with the workpiece and the second set is released from the workpiece, the first set is released from the workpiece and the second set is moved into contact with the workpiece.

[c7] The method of claim 6, wherein the second set holds the workpiece and during the processing step processing fluids are unimpeded to flow off a surface of the workpiece at the locations on the workpiece where the first set of contacts is released therefrom.

[c8] The method of claim 3, wherein the first set includes contacts located at a first, third and fifth position along a periphery of the workpiece and the second set includes contacts located at a second, fourth and sixth position along the periphery of the workpiece.

[c9] The method of claim 1, wherein the workpiece is rotating during the processing step.

[c10] The method of claim 1, further comprising the step of accelerating the workpiece and each of the plurality of contacts holds the workpiece during the acceleration step.

[c11] The method of claim 1, wherein each of the plurality of contacts is separately released from and moved into contact with the workpiece in a sequential order.

[c12] The method of claim 1, wherein each of the plurality of contacts is separately released from and moved into contact with the workpiece in an alternating order.

[c13] The method of claim 1, wherein the plurality of contacts comprises five contacts, releasable in a predetermined sequence.

[c14] The method of claim 1, wherein the processing step includes providing a processing fluid on a surface of the workpiece.

[c15] The method of claim 1, wherein the at least one of the contacts is released for a predetermined amount of time and then moved into engagement with the workpiece for holding the workpiece.

[c16] The method of claim 1, wherein the processing step includes drying a surface of the workpiece.

[c17] The method of claim 1, wherein at least three contacts of the plurality of contacts hold the workspace.

[c18] A method for processing a workpiece, comprising the

steps of:

rotating a workpiece at a predetermined speed;

providing a plurality of gripping mechanisms for holding the workpiece;

processing a surface of the workpiece with processing fluids;

releasing at least one of the plurality of gripping mechanisms from the workspace during the processing step;

moving the at least one of the plurality of gripping mechanisms into contact with workpiece; and

releasing another of the plurality of gripping mechanisms from the workpiece during the processing step.

[c19] The method of claim 18, wherein the plurality of gripping mechanisms comprises a first set of three gripping mechanisms and a second set of three gripping mechanisms.

[c20] The method of claim 19, wherein the first set remains in contact with the workpiece and the second set is released from the workpiece.

[c21] The method of claim 20, wherein:

the first set holds the workpiece and during the processing step processing fluids are unimpeded to flow

off a surface of the workpiece at the locations on the workpiece where the second set is released therefrom; and

after the first set is in contact with the workpiece and the second set is released from the workpiece, the first set is released from the workpiece and the second set is moved into contact with the workpiece such that processing fluids are unimpeded to flow off a surface of the workpiece at the locations on the workpiece where the first set is released therefrom.

[c22] The method of claim 19, wherein the first set includes contacts located at a first, third and fifth position along a periphery of the workpiece and the second set includes contacts located at a second, fourth and sixth position along the periphery of the workpiece.

[c23] The method of claim 19, wherein the at least one of the plurality of gripping mechanisms is released for a predetermined amount of time and then moved into engagement with the workpiece for holding the workpiece.

[c24] The method of claim 18, wherein each of the plurality of gripping mechanisms is separately released and moved into contact with the workpiece in one of a sequential or alternating order.

[c25] A method for processing a workpiece, comprising the steps of:

providing a plurality of gripping mechanisms for holding the workpiece during a rotation of the workpiece; and

moving alternately gripping mechanisms of the plurality of gripping mechanisms away from and into contact with the workspace during processing to allow processing fluids to freely flow, unimpeded, from a surface of the workpiece at previous locations of the released gripping mechanisms.

[c26] The method of claim 25, wherein the processing includes providing a processing fluid to the surface of the workpiece which is distributed on the surface of the workpiece by the rotation of the workpiece.

[c27] The method of claim 25, wherein the moving step includes moving alternately non-adjacent gripping mechanisms .

[c28] The method of claim 27, wherein the moving step includes:

moving a first, third and fifth position gripping mechanisms away from the workpiece while a second, fourth and sixth position gripping mechanisms holds the workpiece; and

moving the first, third and fifth position gripping mechanism toward the workpiece and the second, fourth and sixth position gripping mechanisms toward the workpiece to hold the workpiece.

[c29] A system for processing a workpiece, the system comprising:

a plurality of moveable gripping mechanisms being moveable between a holding position and a releasable position with respect to a workpiece; and

a means for controlling alternating movement of moveable gripping mechanisms of the plurality of moveable gripping mechanisms away from and into contact with the workspace during processing to allow processing fluids to freely flow, unimpeded, from a surface of the workpiece at previous locations of the released gripping mechanisms.

[c30] The system of claim 29, wherein the means is a control which controls movement of at least non-adjacent moveable gripping mechanisms of the plurality of moveable gripping mechanisms.